

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte JACOB W. JORGENSEN

Appeal No. 09/349,477
Application No. 2003-1923

ON BRIEF¹

Before JERRY SMITH, BARRY, and SAADAT, *Administrative Patent Judges*.
BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-22. The appellant appeals therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

The invention at issue on appeal concerns telecommunications. Conventional telecommunications networks use circuit switching to achieve an acceptable quality of service ("QoS") for end users. Such networks, moreover, have been customized for the type of traffic to be transported. For example, voice traffic is sensitive to latency but

¹An oral hearing was waived. (Paper No. 31.)

less sensitive to quality. On the other hand, a spreadsheet is insensitive to latency but requires error-free delivery. (Spec. at 4.)

According to the appellant, the absence of an acceptable QoS coupled with a sufficient bandwidth to qualify as broadband has impeded the deployment of a wireless, broadband system. Delivery of a raw bandwidth over wireless media without acceptable QoS would not benefit end users. Conversely, delivery of a high QoS at the cost of a sufficient bandwidth would also not benefit end users. (*Id.* at 5.)

Accordingly, the appellant's invention is a wireless point-to-multipoint ("PtMP") telecommunications system. Figure 3B of his specification shows that the PtMP system comprises a wireless base station (302) and a host workstation (136a) connected to a data network (142). Subscriber customer premise equipment ("CPE") are coupled to the wireless base station via a shared, wireless bandwidth (i.e., a wireless communication medium between 292d and 290d). Subscriber workstations (120d and 122d) are coupled to the subscriber CPE via a local area network ("LAN"). (Appeal Br. at 2-3.)

The invention uses a "packet-centric" protocol to transfer data via the data network and the shared, wireless bandwidth. A packet-centric protocol does not use

dedicated circuits to transfer data. Data to be transferred are segmented and packetized, and a header is placed on the packet for delivery. (*Id.* at 3.)

The invention allocates a wireless bandwidth and other resources based on contents of packets to be transferred. Contents of packets are analyzed to characterize QoS requirements for applications associated with packets of Internet Protocol ("IP") flows. For example, large bandwidth can be allocated to an application using the File Transfer Protocol. (*Id.* at 3-4.)

A further understanding of the invention can be achieved by reading the following claim.

1. A packet-centric wireless point to multi-point telecommunications system comprising:

a wireless base station communicating via a packet-centric protocol to a first data network;

one or more host workstations communicating via said packet-centric protocol to said first data network;

one or more subscriber customer premise equipment (CPE) stations coupled with said wireless base station over a shared wireless bandwidth via said packet-centric protocol over a wireless communication medium, wherein said packet-centric protocol used over said wireless communication medium is not circuit-centric, and wherein real-time wireless bandwidth allocations and system resource allocations are determined based on contents of packets to be communicated over said wireless communication medium; and

one or more subscriber workstations coupled via said packet-centric protocol to each of said subscriber CPE stations over a second network.

Claims 1-6, 8-16, and 18-22 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,930,472 ("Smith") and U.S. Patent No. 6,295,285 ("Whitehead"). Claims 7 and 17 stand rejected under § 103(a) as obvious over Smith; Whitehead; and U.S. Patent No. 6,262,980 ("Leung").

OPINION

Rather than reiterate the positions of the examiner or the appellant *in toto*, we focus on a dispositive point of contention therebetween. Admitting that "Smith does not explicitly teach real-time wireless bandwidth allocations and system resource allocations are determined based on packet contents of packet to be communicated over the wireless communication medium," (Examiner's Answer at 4), the examiner asserts, "Whitehead discloses queues contain information regarding time-of-arrival, length of the packet and other information [see Col. 7, Lines 43-65] which means that bandwidth allocations and system resource allocations are determined based on the contents of packets since the term 'contents of packets' . . . would include information such as lengths of the packets." (*Id.* at 9.) The appellant argues, "[s]uch information is

a description of *physical attributes and/or service requirements of data packets* and is **not** a description of **contents** of data packets." (Appeal Br. at 9.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe claims at issue to determine their scope. Second, we determine whether the construed claims would have been obvious.

1. CLAIM CONSTRUCTION

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). "The general rule is, of course, that terms in the claim are to be given their ordinary and accustomed meaning." *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999) (citing *Renishaw PLC v. Marposs Societa Per Azioni*, 158 F.3d 1243, 1249, 48 USPQ2d 1117, 1121 (Fed. Cir. 1998); *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1572, 40 USPQ2d 1619, 1622 (Fed. Cir. 1996)). "It is well settled that dictionaries provide evidence of a claim term's 'ordinary meaning.'" *Inverness Med. Switz. GmbH v. Warner Lambert Co.*, 309 F.3d 1365, 1369, 64 USPQ2d 1926, 1930 (Fed. Cir. 2002) (citing *Texas Digital Sys. Inc. v. Telegenix Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818

(Fed. Cir. 2002); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002)).

Here, independent claim 1 recites in pertinent part the following limitations: "real-time wireless bandwidth allocations and system resource allocations are determined based on **contents** of packets to be communicated over said wireless communication medium. . . ." (Emphasis added.) Independent claim 13 includes similar limitations.

The appellant proffers "Webster's II New College Dictionary (1995)" to define the term "contents." (Reply Br. at 3.) For its part, the Dictionary lists the following definitions of the term:

- "[s]omething contained in a receptacle"
- "[s]ubject matter of a written work"
- "[t]he meaning or significance of a literary or artistic work"
- "[t]he proportion of a specified substance."

P. 343. "Because words often have multiple dictionary definitions, some having no relation to the claimed invention, the intrinsic record must always be consulted to identify which of the different possible dictionary meanings of the claim terms in issue is most consistent with the use of the words by the inventor." *Texas Digital Sys.*, 308 F.3d at 1203, 64 USPQ2d at 1819 (citing *Dow Chem. Co. v. Sumitomo Chem. Co.*, 257 F.3d 1364, 1372-73, 59 USPQ2d 1609, 1614 (Fed. Cir. 2001); *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478, 45 USPQ2d 1429, 1433 (Fed. Cir. 1998)).

Here, the appellant's specification discloses that "packet header field information 700 . . . can be used to identify IP flows and the QoS requirements of the IP flows." (Spec. at 99.) "Specifically, IP header fields 702 can include, e.g., source and destination IP addresses, helpful in providing application aware preferential resource allocation; IP type of service (TOS), a useful field for assisting PRIMMA MAC in classifying a packet or IP flow; IP time to live (TTL), a useful field for anticipating application packet discards; and protocol fields which can be used in identifying IP flows." (*Id.*) By explaining that data contained in fields of a packet can be used to identify QoS requirements, the specification evidences that the first dictionary definition, viz., "[s]omething contained in a receptacle," is most consistent with the appellant's use. Giving the term "contents" its ordinary meaning in view of the specification, therefore, the limitations require determining in real-time allocations of a wireless bandwidth and of system resources based on the data contained in packets to be communicated over a wireless communication medium.

2. OBVIOUSNESS DETERMINATION

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956

(Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would . . . have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, the paragraph of Whitehead cited by the examiner discloses that a "[c]ontroller 13 maintains information regarding all packet input queues for all base stations 11 and terminals 12. According to the invention, controller 13 keeps a token queue corresponding to each packet queue in the network." Col. 7, ll. 43-46. "[E]ach token in token queue 40 may contain information regarding, such as, for example, time-of-arrival, service deadline, the length of the packet, and other information that is useful for scheduling the corresponding packet." *Id.* at ll. 51-54. Although the length of a packet is represented by data, the examiner does not allege, let alone show, that a packet contains such data. To the contrary, the aforementioned paragraph explains that such data are contained in a token in a token queue.

The examiner does not allege, let alone show, that the addition of Leung cures the aforementioned deficiency of Smith and Whitehead. Absent a teaching or

suggestion of determining in real-time allocations of a wireless bandwidth and of system resources based on the data contained in packets to be communicated over a wireless communication medium, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejection of claim 1; of claims 2-12 and 21, which depend therefrom; of claim 13; and of claims 14-20 and 22, which depend therefrom, is reversed.

CONCLUSION

In summary, the rejection of claims 1-22 under § 103(a) is reversed.

REVERSED

JERRY SMITH
Administrative Patent Judge

LANCE LEONARD BARRY
Administrative Patent Judge

MAHSHID D. SAADAT
Administrative Patent Judge

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